CLAIMS:

I claim:

1.   A method of switching transactions on an interconnect switch, the interconnect switch having a primary port connected to a primary interconnect, a first secondary port connected to a bridge, and a plurality of end-device ports, each connectable to one of a plurality of end devices, the method comprising the steps of:

identifying a transaction as a bridge transaction or a non-bridge transaction;

routing the bridge transaction to the first secondary port;

routing the non-bridge transaction to the plurality of end device ports.

2.   The method of claim 1, wherein the transaction has a target address, the step of identifying a transaction as a bridge transaction or a non-bridge transaction comprising the steps of:

shadowing registers of the bridge with a plurality of shadow registers in the interconnect switch;

if the target address is mapped by the shadow registers, identifying the transaction as a bridge transaction; and

if the target address is not mapped by the shadow registers, identifying the transaction as a non-bridge transaction.

3.   The method of claim 2, the step of shadowing registers comprising the step of:

shadowing base address registers of the bridge in the switch, the base address registers of the bridge mapping addresses associated with a secondary interconnect of the bridge.

4.   The method of claim 2, the step of shadowing comprising the step of:

snooping a configuration transaction that configures base address registers of the bridge; and

copying base address register information obtained in the snooping step to the shadow registers.

5.   The method of claim 1, the step of routing a non-bridge transaction comprising the step of:

broadcasting the non-bridge transaction to each of the plurality of end-device secondary ports.

6.   The method of claim 1, the step of routing a non-bridge transaction comprising the step of:

successively routing the non-bridge transaction to each of the end-device secondary ports until the non-bridge transaction is claimed by a first end device connected to a first end-device secondary port.

7.   The method of claim 6, wherein the non-bridge transaction has a target address, further comprising the steps of:

identifying an address range associated with the first end device;

routing further non-bridge transactions with the target address within the address range to the first end-device secondary port;

successively routing further non-bridge transactions to each other of the plurality of end-device secondary ports until claimed by another end device.

8.   The method of claim 1, wherein the transaction is a peer-to-peer transaction.

9.   The method of claim 1, wherein the transaction is a downstream transaction.

10.   An interconnect switch, comprising:

a primary port, coupled to a primary interconnect;

a first interconnect bridge coupled to the primary port;

a secondary interconnect coupled to the first interconnect bridge;

a plurality of secondary ports coupled to the secondary interconnect, comprising:

a bridge port, coupled to a second interconnect bridge; and

a plurality of end-device ports, each coupled to one of a plurality of end devices;

a switch engine, comprising:

circuitry to receive a transaction, the transaction having a target address;

circuitry to decode the target address;

circuitry to route the transaction to the bridge port if the circuitry to decode the target address decodes the target address as directed to the second interconnect bridge;

circuitry to route the transaction to the plurality of end-device ports if the circuitry to decode the target address decodes the target address as not directed to the second interconnect bridge.

11.   The interconnect switch of claim 10, the circuitry to route the transaction to the plurality of end-device ports comprising:

circuitry to broadcast the transaction to the plurality of end-device ports.

12.   The interconnect switch of claim 10, the circuitry to route the transaction to the plurality of end-device ports comprising:

circuitry to successively route the transaction to each of the plurality of end-device ports until the transaction is claimed by an end device.

13.   The interconnect switch of claim 12, the circuitry to successively route the transaction to each of the plurality of end-device ports comprising:

circuitry to successively route the transaction to the end-device ports until the transaction is claimed by a claiming end device of the plurality of end devices.

14.   The interconnect switch of claim 13, the circuitry to route transactions to the end-device ports further comprising:

circuitry to store the end-device address range associated with the claiming end device;

circuitry to route further transactions to the claiming end device if the target address is within the end-device address range.

15.   The interconnect switch of claim 10,

the second interconnect bridge comprising:

a plurality of registers, the registers mapping a range of target addresses to a secondary interconnect of the second interconnect bridge;

the circuitry to decode target addresses comprising:

a plurality of shadow registers, the shadow registers shadowing the plurality of registers of the second interconnect bridge;

the circuitry to route the transaction to the bridge port comprising:

circuitry to route the transaction to the bridge port if the target address is mapped to the secondary interconnect by the plurality of shadow registers; and

the circuitry to route the transaction to the end-device ports comprising:

circuitry to route the transaction to the plurality of end-device ports if the target address is not mapped to the secondary interconnect by the plurality of shadow registers

16.   The interconnect switch of claim 10, wherein the transaction is a downstream transaction.

17.   The interconnect switch of claim 10, wherein the transaction is a peer-to-peer transaction.